

**REMARKS/ARGUMENTS**

The Office Action of June 3, 2003 has been received and considered. Claims 1-23 were previously cancelled. In the Office Action, claims 24-35 were rejected under 35 U.S.C. §103(a).

Claims 24 and 33-36 have been amended to correct a typographical error. Claims 24-36 remain pending. Reconsideration of the application in view of the following remarks is respectfully requested.

The invention relates to an immobilization probe for introducing into an animal, such as cattle, which has a pair of electrodes connected to a power supply. The power supply is designed to produce an electrical current with particular characteristics that have been found to apply a mild, localized current at a level that causes immobilization of an animal when the probe is inserted in the animal's rectum. In particular, the pending claims recite that the electrical power source supplies an electrical current of between about 250 mA and 400 mA with a potential of between about 1 and 11 Volts and a frequency of between about 20 and 50 Hz prior art. These characteristics are not taught or made obvious by the prior art.

Claims 24-35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,933,147 to Du Vall et al. that discloses a therapeutic probe intended to be introduced into the vagina of a female human patient for exercising, and thereby strengthening, her pubococcygeous muscle that has been damaged from childbirth or over use. As a result, the probe of Du Vall and its pulse generator were designed to provide a specific type of electrical stimulation to the vaginal area of the body in order to stimulate the muscles and cause them to contract. The intensity of the pulse generator and its related output is determined by the comfort level of the patient. However, the frequency is expressly disclosed to be above 100 Hz,

preferably at a level of about 200 Hz. As also disclosed, the operation of the Du Vall probe provides the user with two therapeutic functions: (1) exercising and toning the pubococcygeous muscle by causing it to contract for about a second and the relaxed for about a second and (2) educating a woman as to the intensity of her own contractions that are needed to properly exercise and tone her pubococcygeous muscle without the use of the probe. Neither of these therapeutic uses of the Du Vall probe relates to, or in any way suggests, providing an electrical current to an animal that interferes with the natural function of nerves within the animal in order to immobilize the animal for a period of time.

Because of its therapeutic uses, the probe of Du Vall does not provide the current and frequency levels recited in the pending claims for an immobilization device. For example, the pending claims recite an electrical power source that supplies an electrical current of between about 250 mA and 400 mA with a frequency of between about 20 and 50 Hz. However, the patent to Du Vall does not disclose the current levels provided by the probe to the user. Additionally, the patent to Du Vall expressly discloses that the frequency should not be below 100 Hz because it will cause the user significant discomfort. As a result, one of ordinary skill in the art would not have been motivated to modify the probe of Du Vall so that it operated at a frequency between about 20 and 50 Hz and at a current of 250 mA to 400 mA because such a modification is clearly contrary to the express teachings of the patent to Du Vall. As a result, the modification suggested in the Office Action would not have been obvious to one of ordinary skill in the art and would not have motivated the ordinary artisan to modify the method of strengthening a human female's pubococcygeous muscle to arrive at a method of interfering with

the nervous system of an animal in order to prevent the animal's muscles from moving and thereby immobilize the animal. Withdrawal of the rejection is requested.

In support of the rejection, it was asserted that it would have been obvious to the ordinary artisan to modify the levels of current and frequency provided by the probe of Du Vall "depending on the degree of shock one wishes to electrocute the animal with and the number of times to apply the shock to produce the desired result." However, such a modification is not obvious in view of the express disclosure of the patent to Du Vall. This patent expressly discloses that the frequency must be above 100 Hz so that the person does not constantly feel that they may urinate (Col. 3, lines 59-65) and that a 12 volt battery should be used to ease any worry of the patient about the possibility of receiving a shock (Col 4, lines 62-68). Since the clear purpose of the disclosure in the patent to Du Vall is to provide a patient with most amount of comfort while exercising her pubococcygeous muscle, no motivation exists for modifying the current and frequency levels of the Du Vall probe to electrocute an animal and prevent its nerves and muscles from operating. Clearly, the prior art does not suggest modifying a therapeutic exercise device that flexes muscles to arrive at a device that performs a completely contrary action – preventing nerves from operating so that an animal will not move for a period of time.

Further in support of the outstanding rejection, it is asserted in the Office Action that the device of Du Vall is "capable" of immobilizing an animal because it has "similar structure as the present invention as claimed." However, whether a device is capable or not is not the test for obviousness. The test is whether one of ordinary skill in the art would have been motivated to modify the therapeutic muscle exercising device and method disclosed in the patent to Du Vall to arrive at the nerve interrupting, immobilization device recited in the pending claims. As

discussed above, such a modification would clearly not have been obvious to the ordinary artisan because one of ordinary skill would not have looked to modify a vaginally introduced probe that operates within a specifically disclosed set of parameters in order to comfortably exercise the pubococcygeous muscle for therapeutic purposes in order to arrive at a probe that creates a constant interference with the normal function of the nervous system of an animal in order to prevent the animal from being able to move.

Additionally, to address the question set forth on page 5 of the Office Action, the patent to Du Vall does not disclose the value of the resistance achieved within the circuit. Without an indication of the resistance within the Du Vall system, the current levels cannot be determined because current is a function of both resistance and voltage, not voltage alone. Since the Du Vall patent fails to disclose the resistance within its system, it cannot be assumed that the current is the same as that recited in the pending claims because a change in resistance can change the current flowing within a circuit. Therefore, the current created within the system by the voltage of between 0 and 12 volts, at best, is not determinable. Furthermore, it is pointed out that the resistance that can be created by a head of cattle can be significantly different from that created by a human. As a result, the current within these circuits would be different. Additionally, the fact that the patent to Du Vall teaches away from the recited frequency cannot be overlooked.

For all of the above-discussed reasons, it is submitted that the pending claims are not obvious in view of the patent to Du Vall. Withdrawal of the rejection is requested.

Claim 36 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Du Vall in view of FR 2532150 to Lines that discloses a method of immobilizing a sheep by applying electrodes along the backbone of the sheep. These electrodes are intended to be connected to the

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skin that includes the mouth, the rectum and the vulva. However, like the patent to Du Vall, the publication of Lines does not disclose placing a probe within an anal cavity of an animal and applying the recited current at the recited frequency. Accordingly, the asserted combination would not have been obvious to the ordinary artisan because the resulting combination would not arrive at the claimed method. Additionally, contrary to the position taken in the Office Action, the patent to Du Vall clearly does not disclose using the vaginal exercising probe in the rectum of the patient. For all of the above-discussed reasons, the withdrawal of the rejection is requested.

For all of the above-discussed reasons, Applicant submits that claims 24-36 are allowable. Notice to this effect is respectfully requested. If the Examiner has any questions that can be facilitated by contacting Applicant's representative, the Examiner is requested to contact the undersigned at the below listed number.

The Commissioner is authorized to charge the three-month extension of time and any additional fees related to this matter to Deposit Account No. 19-0733.

Respectfully submitted,

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